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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,266	06/19/2003	Manabu Saikawa	JP920020071US1	6742

7590 07/25/2006

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EXAMINER

NEGRON, DANIEL L

ART UNIT	PAPER NUMBER
2627	

DATE MAILED: 07/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/601,266

Applicant(s)

SAIKAWA ET AL.

Examiner

Daniell L. Negrón

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,6 and 10 is/are rejected.
- 7) ☒ Claim(s) 2,4,5,11 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Request for Continued Examination***

1. Examiner acknowledges the request for continued examination (RCE) filed on August 30, 2005.

***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on August 30, 2005 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.
3. The indicated allowability of claims 1, 3, 6, and 10 is withdrawn in view of the newly discovered reference to Liu et al U.S. Patent Application Publication No. 2002/0036859. Rejections based on the newly cited reference follow.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3, 6, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Liu et al U.S. Patent Application Publication No. 2002/0036859.

Regarding claim 1, Liu et al disclose a data storage device (100) comprising a disk-shaped storage medium (108) which has a data storage area and a servo area, the data storage area containing a plurality of data tracks which store user information, the servo area containing a plurality of servo tracks which store servo information for identifying of data tracks (Fig. 5), positions of the plurality a hybrid head slider (118) which supports write and read heads, the write head writing user data on the data tracks of the disk-shaped storage medium, the read head reading the user data written on the data tracks; and a rotary-type actuator (110) which swings the hybrid head slider to position any one of the write and read heads at a target track of the disk-shaped storage medium (page 2, paragraphs 16, 17, 22, 23), wherein a read write offset value set equivalent to an integer number N of the servo tracks (page 4, paragraph 34).

Regarding claim 3, Liu et al disclose a data storage device (100) wherein the integer number N varies with each predetermined number of servo tracks (page 3, paragraph 25).

Regarding claim 6, Liu et al disclose a data storage device (100) wherein the write and read heads are supported by the hybrid head slider (118) while being located at a predetermined center distance from each other in the radial direction of the disk-shaped storage medium (108, page 1, paragraph 9).

Regarding claim 10, method claim 10 is drawn to the method of using the corresponding apparatus claimed in claim 1. Therefore method claim 10 corresponds to apparatus claim 1 and is rejected for the same reasons of anticipation as used above.

***Allowable Subject Matter***

6. Claims 2, 4, 5, 11, and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 2, 11, and 12, prior art fails to teach or suggest a data storage device and corresponding method comprising all the limitations of claim 1, further wherein a pitch of the plurality of the servo tracks is varied in the radial direction of the disk-shaped storage medium, and the read write offset value is thereby set equivalent to the integer number N of the servo tracks.

Regarding claim 4, prior art fails to teach or suggest a data storage device comprising all the limitations of claim 1, further wherein the integer number N increases stepwise from an inner diameter toward an outer diameter of the disk-shaped storage medium.

Regarding claim 5, prior art fails to teach or suggest a data storage device comprising all the limitations of claim 1, further wherein the write and read heads are positioned within a region where an error signal obtained from the servo information is linear.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniell L. Negrón whose telephone number is 571-272-7559. The examiner can normally be reached on Monday-Friday (8:30am-5:00pm).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne R. Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



DLN

July 19, 2006



WAYNE YOUNG  
SUPERVISORY PATENT EXAMINER